

PROCEEDINGS
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FIRST RECORD OF THE PIGMY SHREW IN WYOMING
AND DESCRIPTION OF A NEW SUBSPECIES
(MAMMALIA : INSECTIVORA)

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While trapping shrews in the Medicine Bow Mountains of southeastern Wyoming, I took several specimens of the pigmy shrew (*Microsorex hoyi* Baird). Two males were captured during the early fall of 1963 and five females were taken during the summer of 1964. These specimens are as follows: #K-307, adult male, 80-28-9, 30 September 1963; #K-315, adult male, 78-28-9, 2 November 1963; #K-420, adult female, 78-25-9, 17 July 1964; #K-423, adult female, 87-31-9, 21 July 1964; #K-451, juvenile female, 77-26-9, 30 July 1964; #K-471, adult female, 85-28-10.5, 20 August 1964; #K-472 adult female, 87-29-9.5, 24 August 1964. As far as can be determined, these specimens represent the first valid records of the genus *Microsorex* in Wyoming. The trapping locality is at Trail's Divide Pond, $\frac{1}{4}$ -mile south of the University of Wyoming Summer Science Camp on State Highway 130, Centennial, Albany Co., Wyoming. Gallon cans were buried in a boggy area of sphagnum moss and sedge bordering the pond on 20 September 1963. This area is surrounded by a relatively dry stand of Engelmann Spruce (*Picea engelmannii*) and alpine fir (*Abies lasiocarpa*). The elevation of the pond and bog is exactly 10,000 feet above sea level.

The nearest record of *Microsorex* is from a locality 41 miles west of Ft. Collins, Larimer Co., Colorado, recently reported by Pettus and Lechleitner (1963: 119). This is approximately 60 air miles southeast of the Wyoming locality and in the same range of mountains. The Colorado specimens were recorded

in a strikingly similar habitat, *i.e.*, a sphagnum bog bordering a small pond. It is significant to note that these Wyoming and Colorado *Microsorex* populations occur over 500 miles south of the nearest marginal records of the genus in eastern South Dakota and in northwestern Montana. As Pettus and Lechleitner (*Ibid.*) suggested, there is probably a small relict population of *M. hoyi* in the central Rocky Mountains. However, intensive collecting on certain high mountain habitats of central and northern Wyoming and southwestern Montana might reveal additional disjunct *Microsorex* populations along the backbone of the Rockies.

Other small mammals taken in the cans were *Clethrionomys gapperi* (Vigors), *Microtus montanus*, (Peale), *Sorex cinereus* (Kerr), and *Sorex vagrans* (Baird). The wood frog (*Rana sylvatica* (Baird)) was also very numerous in the cans. This is a relict frog population, whose geographical range is similar to that of *Microsorex*.

Comparison of *Microsorex hoyi* from the central Rockies with specimens of *M. hoyi washingtoni* (Jackson) from Montana and *M. hoyi hoyi* from Manitoba revealed that a hitherto unrecognized subspecies occurs in Colorado and Wyoming. The new form may be recognized by the following description:

***Microsorex hoyi montanus*, new subspecies**

Holotype: Adult male (skin and skull), University of Wyoming Museum of Zoology no. K-307; from edge of Trail's Divide Pond, ¼ mi. S of Univ. Wyoming Summer Science Camp on State Highway 130, Centennial, Albany Co., Wyoming; collected by Larry N. Brown, 30 September 1963. (The holotype will be sent to the U.S. National Museum for deposit.)

Distribution: Known from the Medicine Bow Mountain Range of Albany Co., Wyoming and Larimer Co., Colorado.

Diagnosis: Distinguished from *M. hoyi washingtoni* by having summer pelage more gray-brown dorsally, tail darkened toward tip, and ventral pelage pale gray with a moderate buff tinge; skull shorter and more flattened, and palate shorter. Differs from *M. hoyi hoyi* by having a darker and more gray dorsal pelage, tail sepia above instead of buff brown, and the ventral pelage with a moderate buff tinge; skull shorter and narrower, and palate shorter.

Measurements (in mm): Holotype: Total length, 80; tail, 28; hind foot, 9; condylobasal length of skull, 13.6; palatal length, 4.7; cranial

breadth, 6.2; interorbital breadth, 3.0; maxillary breadth, 4.0; maxillary tooth row, 4.6; height of cranium, 3.6.

Average and extreme body and cranial measurements of 10 adults from Albany Co., Wyoming and Larimer Co., Colorado, are: Total length, 82.5 (75–87); tail, 28.0 (25–31); hind foot, 9.3 (9.0–10.5); condylobasal length of skull, 13.4 (13.2–13.6); palatal length, 4.7 (4.6–4.8); cranial breadth, 6.1 (6.0–6.2); interorbital breadth, 3.0 (3.0–3.1); maxillary breadth, 3.9 (3.9–4.0); maxillary tooth row, 4.6 (4.5–4.7); height of cranium, 3.7 (3.6–3.8).

Comparisons: The new form, *M. h. montanus*, has been compared directly with specimens of *M. h. hoyi* and *M. h. washingtoni*, which are the two subspecies with geographical ranges most closely approaching this relict population. The average cranial measurements of three adult *M. hoyi washingtoni* from Montana are: condylobasal length, 14.0; palatal length, 5.3; cranial breadth, 6.8; interorbital breadth, 3.2; maxillary breadth, 4.1; maxillary tooth row, 4.7; height of cranium, 4.2. The average cranial measurements of three adult *M. hoyi hoyi* listed by Jackson (1928: 203) are: condylobasal length 14.7; palatal length, 5.3; cranial breadth, 6.5; interorbital breadth, 3.1; maxillary breadth, 4.3; maxillary tooth row, 4.8.

Remarks: The reduction of buff pigmentation in the dorsal pelage of *M. h. montanus*, together with smaller overall skull dimensions, readily separates this form from its closest geographic relatives. *M. h. montanus* appears to be more closely related morphologically to *M. h. washingtoni* than to *M. h. hoyi*.

Specimens examined: *Microsorex hoyi hoyi*—2 (Univ. Wyoming Museum of Zoology), MANITOBA. *Microsorex hoyi washingtoni*—3 (Montana State Univ. Museum of Zoology), Yellow Bay, Flathead Lake, MONTANA. *Microsorex hoyi montanus*—6 (Colorado State Univ. Museum of Zoology), 41 mi. W Ft. Collins, COLORADO; 7 (Univ. Wyoming Museum of Zoology), ¼ mi. S Univ. Wyoming Summer Science Camp, Centennial, WYOMING (type-locality).

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LITERATURE CITED

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